Technical data sheet

Merbenit SK212 LOT

Merbenit SK212 LOT is an advanced formula high quality adhesive sealant based on SMP especially designed for direct glazing applications in the transportation industry where a long skin and open time is required. It is an innovative fast curing high tack, high modulus and high green strength formulation for OEM and aftermarket applications for bonding windows in cars, buses, trucks, heavy machinery, marine and rail applications.

Product advantages

- Very high initial tack
- Free of solvents, isocyanates and silicones
- Adjustable
- Fast curing through
- Permanently elastic from - 40°C to + 90°C
- Very high mechanical strength
- Very good sealing properties
- Very wide adhesion range
- Odourless
- Compatible with paints
- Chemical neutral polymerisation
- Resistant up to +200°C for powder and thermal coating short-term
- Non-corrosive on surfaces
- Vibration absorbing
- Resists thermal expansion and material tension

Technical data

Chemical base	Silane modified polymer
Mechanism of curing	1 comp. moisture curing
Shore A hardness, DIN 53505	50
Modulus elongation at 100%, DIN 53504 S2	ca. 1.9 N/mm²
Elongation at break, DIN 53504 S2	ca. 280%
Tensile strength, DIN 53504 S2	ca. 3.3 N/mm²
Consistency	stable
Tooling time	max. 25 min.
Curing rate after 24h	≥ 3.0 mm
Curing rate after 48h	≥ 4.0 mm
Density	1.42 ± 0.05 g/cm³
Volume change, DIN EN ISO 10563	≤ 3%
Temperature resistance after curing	- 40 °C to + 90 °C
Application temperature	+ 5 °C to + 40 °C

All measurements were performed under normal conditions (23 °C and 50 % relative humidity).

Application

Bonding of windscreens in vehicle, wagon and cabin construction. For non-supported bonds and where a fast, continous working process is required. Flexible, immediate supporting bond in the area of metal, apparatus and machine construction, plastics technology, air-conditioning and ventilation systems, car body, wagons, vehicles and container construction.

Substrate range

Suitable materials are metals, powder-coated, varnished, galvanised, anodised, chromed or hot zinc dipped surfaces, various plastics, ceramics, glass, concrete and wood. Due to the large variety of different plastics and compositions as well as materials which are susceptible cracks, preliminary tests are recommended.

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Substrate preparation
To achieve reproductible results the substrate has to be pre-treated according to the state of technology. All undefined surfaces must be removed using suitable methods. Apply the adhesive/sealant promptly to the prepared surface. Depending on the substrate and the expected requirements a mechanical or chemical pre-treatment is recommended respectively cleaning with rubbing alcohol, isopropanol or acetone. For application the surface has to be clean, durable and free of dust, oil and grease. The compatibility with adjacent materials, coatings, etc. must be determined in advance.

Adhesion promoter
Windows with ceramic coating must be cleaned with isopropanol or Adhesion Promoter V2. Windows without ceramic coating must be cleaned with isopropanol and then prepared with Adhesion Promoter Black Glass. Clean the substrate surface with isopropanol and if necessary pre-treat with Adhesion Promoter V40. Preliminary tests are recommended.

Processing
- Can be applied directly from the cartridge / sausage using a suitable caulking gun (manual, air, battery)
- The application with thrust piston or telescope is recommended
- V-Nozzles are recommended for bonding applications
- Depending on the bonding surface, material expansion, tension and mechanical stresses a layer thickness of 1 - 6 mm is recommended
- The bonding must take place within the processing time
- Can be applied with automatic dispension equipment
- Non-cured adhesive can be removed with rubbing alcohol or isopropanol
- Cured adhesive can only be removed mechanically
- Please follow the application instruction.

Paint compatibility
Due to the diversity of varnishes and paints on the market we recommend preliminary tests. Using paints based on alkyd resins may delay the drying process. After cleaning with acetone joints can be varnished at any time. For burning process the material can be exposed, when fully cured, in short term to elevated temperatures.

Chemical resistance
- Good against water, aliphatic solvents, oils, grease, diluted inorganic acids and alkalis
- Moderate against esters, ketone and aromatics
- Not resistant against concentrated acids and chlorinated hydrocarbons

Colours
- black

Packaging
- Cartridges of 290 ml in carton of 12 units
- Sausages of 600 ml in carton of 12 units

Shelf life and storage conditions
- 15 months from date of production
- Store cool and dry (10 - 25 °C)
- Further information on request

Work and environmental safety
Important information about work and environmental safety is available on the material safety data sheet.

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